

Selection Guide for CNC Rotary Tables ...



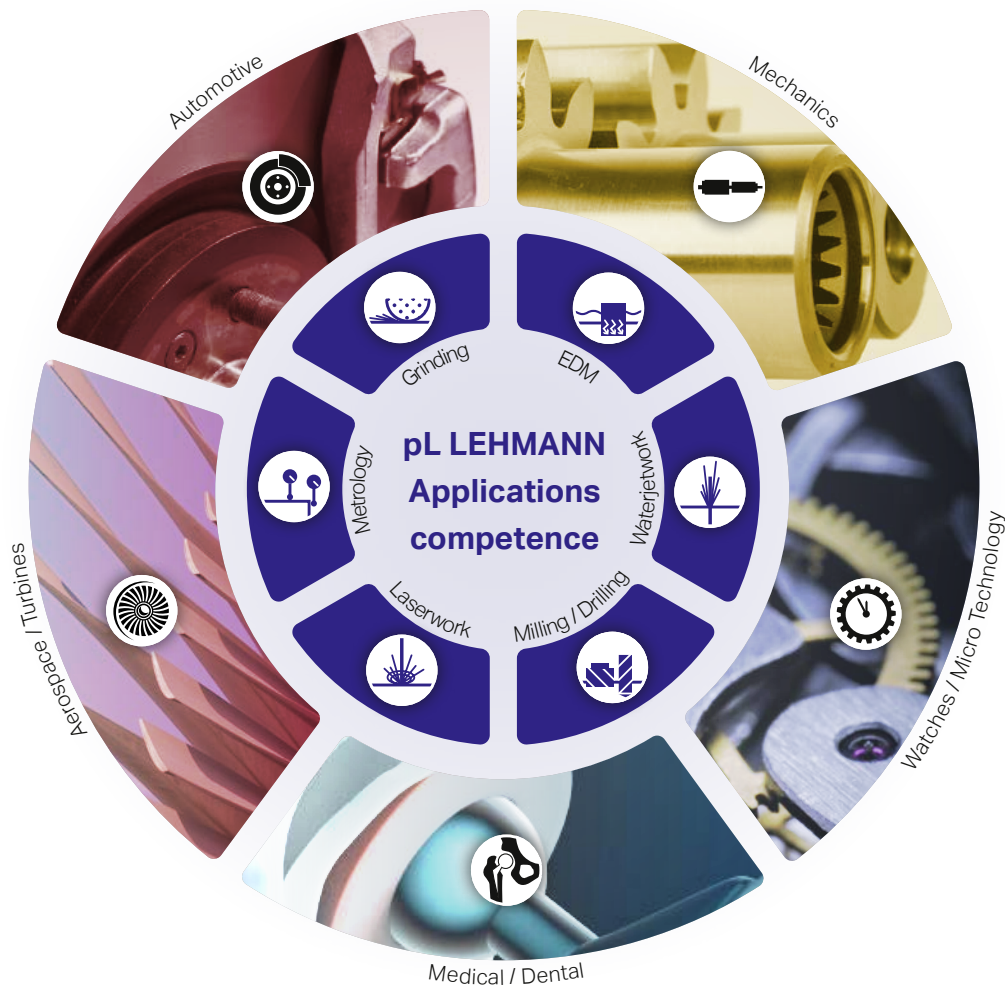
pl

HURCO

10/2018 | EN

... for BX-, VM- and VMX-series

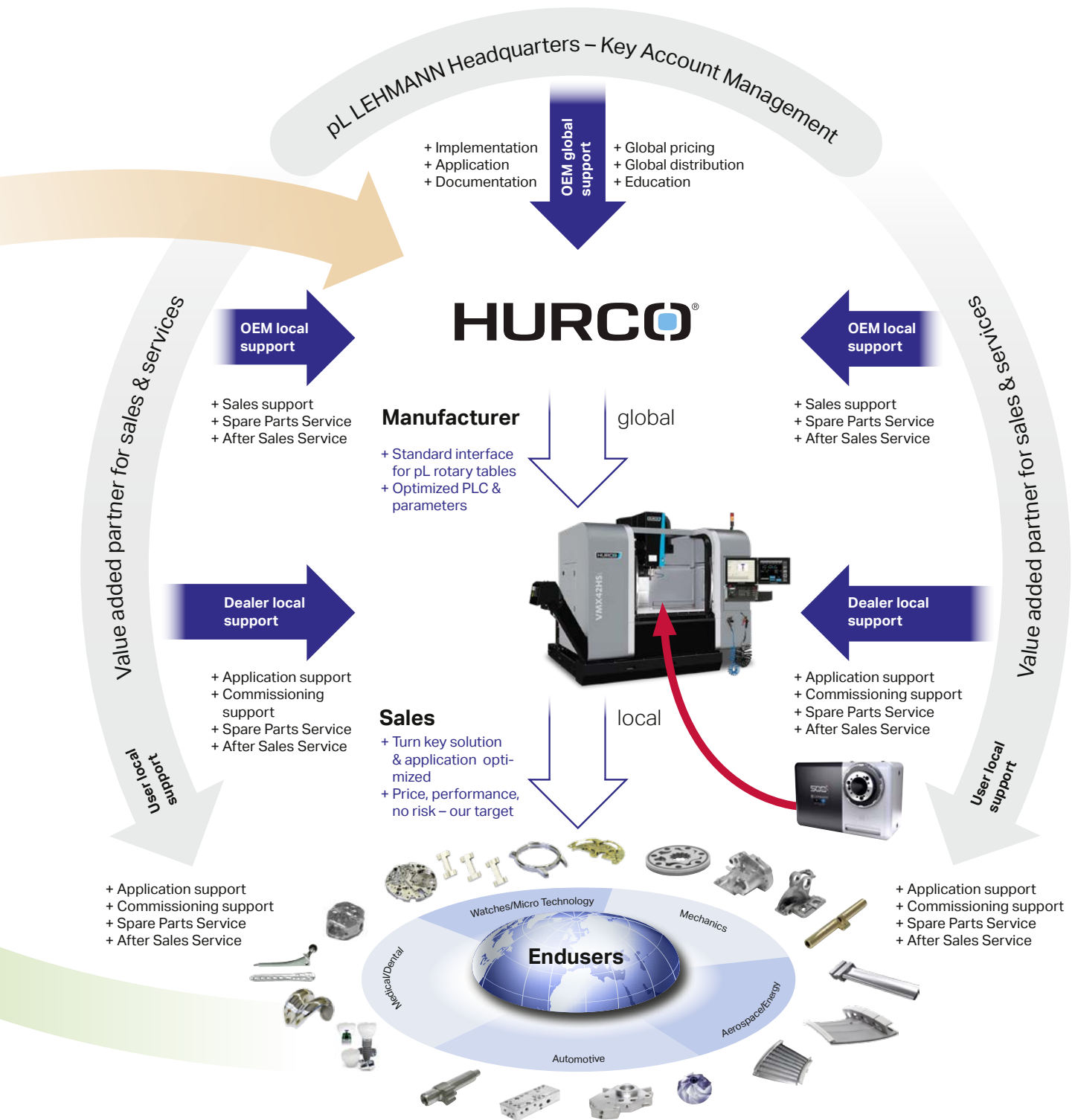
CNC rotary tables for economical manufacturing:
pL LEHMANN has suitable and rational solutions for
nearly every industry



pL rotary tables in use: on over **40** different machine brands
and over **160** different machine models.

pL competence: Integration in **all known** CNC control systems
(Fanuc, Siemens, Heidenhain, Haas, Winmax, Mitsubishi, Brother,
Mazatrol, Okuma ...), for new machines as well as for retrofits

Professional products from professional partners:
 HURCO and pL LEHMANN provide
 first-class service to common customers



NEW
up to +30 %

Up to 210 rpm
up to 0.21 sec / 90°

Extended travel in
Z- and X-direction

High spindle load,
heavy-duty bearing

High speed

More space

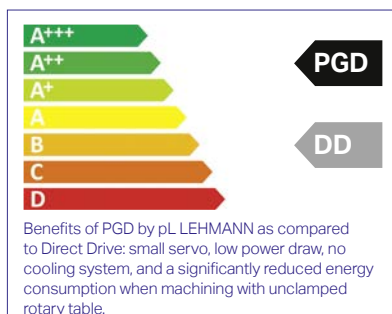
Heavy duty

E-Series



Rotary tables suitable for
simultaneous operation!

Save energy



Energy label at the left
An intuitive rating as consumption greatly depends on usage, and without any liability assumed, following the directives on energy labelling

**See main catalog
for more features**

NEW
up to +30 %

High torque

Feed torque up to
850 Nm (provisional)

Adaptability

Multifunctional
spindle HSK

Precision

On the workpiece, as
precise as 2 µm / 100 mm

NEW
up to +150%

Pneum. clamping
up to 7,000 Nm

High clamp

Large parts
up to \varnothing 500

Big size

PGD backlash-free
long-life gear unit

No backlash

T-Series



**All base plates
made of steel**

NEW

with integrated hole pattern for
slot spacing of 100 and 125 mm,
integrated alignment system
lineFIX for lengthwise or cross-
wise clamping.

M-Series



Connectivity

Wireless monitoring,
for operation & service

No adjust

Load change without
parameter adjustment

Less cost

No cooling system,
no hydraulics



BX 40i



VM 10HSi



VM 20i



VMX 30i



VMX 42HSi

A word from HURCO:

«We care about your business

HURCO combines customer expertise with the industry's most powerful CNC control. Our CNC machine control, powered by WinMax CNC software, is the key to making job shops more profitable because it is designed to make small batch/high mix production efficient by reducing setup time and programming time.»

The right machine/rotary table combination for economical production: this Selection Guide helps you make the right selection

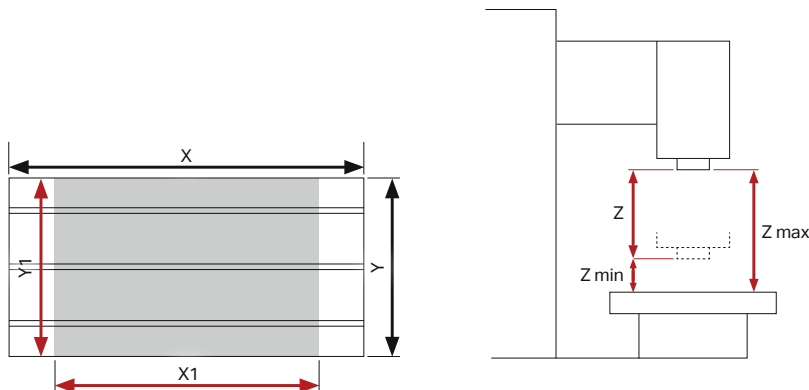


	Table diameter [mm]		Permissible overhang *	Traverse stroke [mm]					Table load ** max [kg]
	X	Y		X1	Y1	Z	Zmin	Zmax	
BX 40i	1'050	700	10%	1'020	700	500	178	678	1'000
VM 10HSi	762	406	10%	660	406	508	102	610	682
VM 10i	762	406	10%	660	406	508	102	610	340
VM 20i	1'168	508	10%	1'016	508	508	102	610	909
VM 30i	1'321	508	10%	1'270	508	508	102	610	909
VMX 24HSi	760	508	10%	610	508	508	152	660	1'360
VMX 24i	760	508	10%	610	508	508	152	660	1'360
VMX 30HSi	1'020	508	10%	762	508	508	152	660	1'364
VMX 30i	1'020	508	10%	762	508	508	152	660	1'360
VMX 42HSi	1'270	610	10%	1'067	610	610	152	762	1'360
VMX 42i	1'270	610	10%	1'067	610	610	152	762	1'360
VMX 50i	1'500	660	10%	1'270	660	610	152	762	1'360
VMX 60i	1'676	660	10%	1'524	660	610	102	712	1'360
VMX 64i	1'676	889	10%	1'625	864	762	127	889	2'722
VMX 84i	2'184	865	10%	2'134	864	762	127	889	2'268

* The recommended rotary tables can overhang the machine table by so many % (e.g. 10 % means: the rotary table length can be greater than dimension Y or X by max. 10 % of the machine width Y with Y-clamping or 10 % of the table length X with X-clamping.)

** The recommended rotary tables do not exceed 50 % of the allowed table load.

Table explanation for pp. 8–11

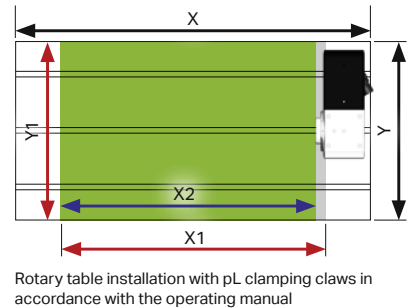
	EA-507 X2	EA-510 X2	EA-520 X2	EA-530 X2
BX 40i			826	797

Wherever values are listed, the combination is recommended. Empty cells mean that a combination is not possible, because the rotary table is too large, or is not recommended, because the rotary table is disproportionately small or heavier than 50% of the table load.

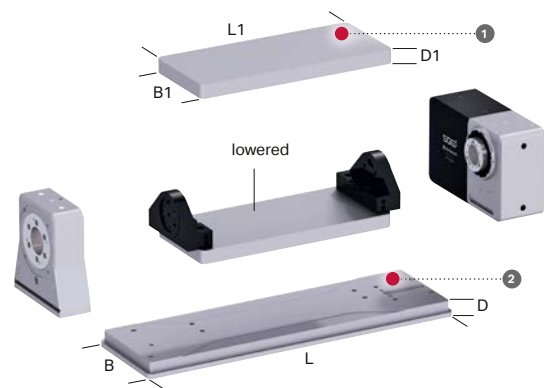
For further details about the rotary tables, see p. 12 and higher or refer to the main catalog



	EA-507 X2	EA-510 X2	EA-520 X2	EA-530 X2
BX 40i			826	797
VM 10HSi	544	528	502	
VM 10i	544	528	502	
VM 20i	925	909	883	854
VM 30i	1'129	1'113	1'087	1'058
VMX 24HSi	518	502	476	447
VMX 24i	518	502	476	447
VMX 30HSi	724	708	682	653
VMX 30i	724	708	682	653
VMX 42HSi	1'002	986	960	931
VMX 42i	1'002	986	960	931
VMX 50i		1'202	1'176	1'147
VMX 60i		1'417	1'391	1'362
VMX 64i				1'413
VMX 84i				1'921



Clamping yokes for EA-type rotary tables



			EA-507		EA-510		EA-520			EA-530	
1 Clamping yokes	Sph	[mm]	190		180		210			218	
	Length L1	[mm]	350	450	500	600	600	700	800	800	1000
	Width B1	[mm]	165		215			270			270
	Thickness D1	[mm]	20		35		40			40	
2 Base plates	Length L	[mm]	622	722	785	885	916	1016	1116	1172	1372
	Width B	[mm]	168		248			301			368
	Thickness D	[mm]	30		30		30				38
Weights / moments of inertia (without rotary table, without counter bearing)	Weight (Al)	[kg]	10	12	23	28	40	45	52	on request	
	Weight (steel)	[kg]	29	34	66	80	117	130	152		
	Mom. inert. (Al)	[kgm ²]	0.02	0.02	0.06	0.07	0.16	0.17	0.21		
	Mom. inert. (steel)	[kgm ²]	0.04	0.05	0.17	0.21	0.46	0.50	0.60		

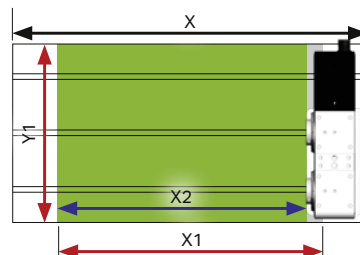
Explanations for pp. 8 to 11

The recommendations are for information purposes only. We recommend that you verify the effective dimensions prior to ordering. Modifications on the machine can lead to collisions and affect the dimensions X2 and Y2.



	M2-507	M2-510	M3-507	M3-510
	X2			
BX 40i	809	799	809	799
VM 10HSi				
VM 10i				
VM 20i	866	856		
VM 30i	1'070	1'060		
VMX 24HSi	459	449		
VMX 24i	459	449		
VMX 30HSi	665	655		
VMX 30i	665	655		
VMX 42HSi	943	933	943	
VMX 42i	943	933	943	
VMX 50i	1'159	1'149	1'159	1'149
VMX 60i	1'374	1'364	1'374	1'364
VMX 64i	1'425	1'415	1'425	1'415
VMX 84i	1'933	1'923	1'933	1'923

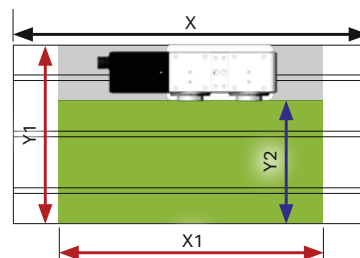
Y-mounting



Rotary table installation with pL clamping claws in accordance with the operating manual

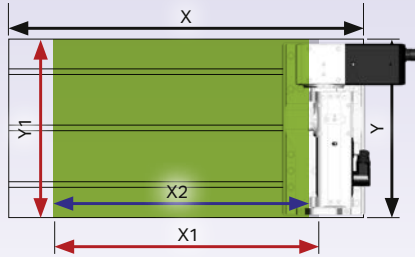
	M2-507	M2-510	M3-507	M3-510
	Y2			
BX 40i				
VM 10HSi	180	170	180	170
VM 10i	180	170	180	170
VM 20i			282	272
VM 30i				272
VMX 24HSi			282	272
VMX 24i			282	272
VMX 30HSi			282	272
VMX 30i			282	272
VMX 42HSi				374
VMX 42i				374
VMX 50i				
VMX 60i				
VMX 64i				
VMX 84i				

X-mounting



Rotary table installation with pL clamping claws in accordance with the operating manual

Y-mounting



Rotary table installation using hole pattern in base plate



TIP1



TAP1



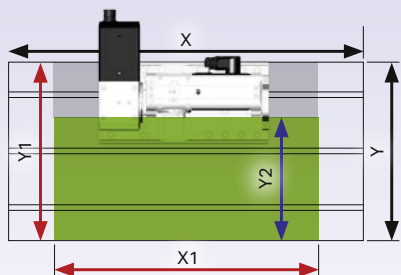
TOP1.2

Important remark: The tilting range of 180° (order no. SWB.5xx-180) can be used under usual reserve only, because the limit switches are also used as reference switches.

	TIP1c TF-507510 X2	TIP2c TF-510520 X2	TIP3c TF-520530 X2	TAP1c T1-507510 X2	TAP2c T1-510520 X2	TAP3c T1-520530 X2	TAP1 T1-507510 X2	TAP2 T1-510520 X2	TAP3 T1-520530 X2	TOP1 T1-507510 X2
BX 40i	905	861	841	865	845	811	865	845		865
VM 10HSi										
VM 10i										
VM 20i	962	918		922						
VM 30i	1'166	1'122		1'126						
VMX 24HSi	555	511		515						
VMX 24i	555	511		515						
VMX 30HSi	761	717		721						
VMX 30i	761	717		721						
VMX 42HSi	1'039	995	975	999	979		999	979		999
VMX 42i	1'039	995	975	999	979		999	979		999
VMX 50i	1'255	1'211	1'191	1'215	1'195	1'161	1'215	1'195		1'215
VMX 60i	1'470	1'426	1'406	1'430	1'410	1'376	1'430	1'410		1'430
VMX 64i	1'521	1'477	1'457	1'481	1'461	1'427	1'481	1'461	1'427	1'481
VMX 84i	2'029	1'985	1'965	1'989	1'969	1'935	1'989	1'969	1'935	1'989

	TOP2 T1-510520 X2	TOP3 T1-520530 X2	TAP1c.2 T1-507510 X2	TAP2c.2 T1-510520 X2	TAP3c.2 T1-520530 X2	TAP1.2 T1-507510 X2	TAP2.2 T1-510520 X2	TAP3.2 T1-520530 X2	TOP1.2 T2-507510 X2	TOP2.2 T2-510520 X2	TOP3.2 T2-520530 X2
BX 40i	845		865			865			865		
VM 10HSi											
VM 10i											
VM 20i											
VM 30i											
VMX 24HSi											
VMX 24i											
VMX 30HSi											
VMX 30i											
VMX 42HSi			999								
VMX 42i			999								
VMX 50i	1'195		1'215			1'215					
VMX 60i	1'410		1'430			1'430					
VMX 64i	1'461	1'427	1'481	1'461		1'481	1'461		1'481	1'461	
VMX 84i	1'969	1'935	1'989	1'969		1'989	1'969		1'989	1'969	

X-mounting



Rotary table installation using hole pattern in base plate



TIP1

TAP1

TOP1.2

Important remark: The tilting range of 180° (order no. SWB.5xx-180) can be used under usual reserve only, because the limit switches are also used as reference switches.

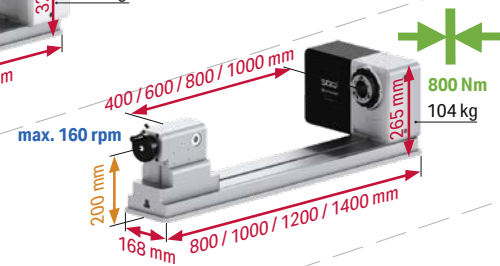
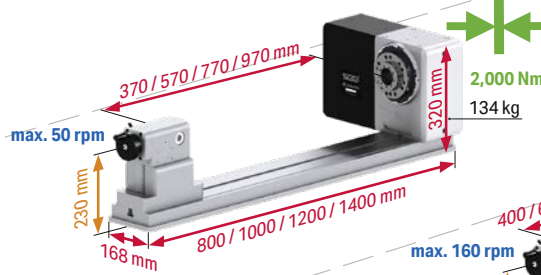
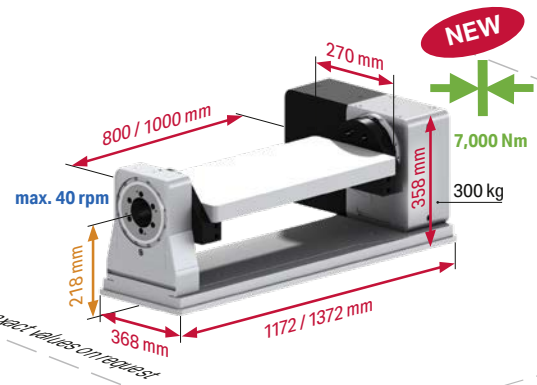
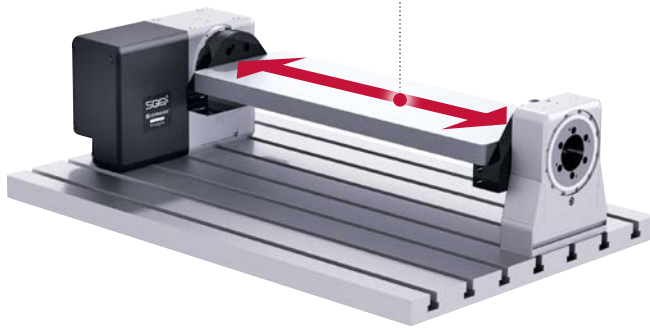
	TIP1c TF-507510 Y2	TIP2c TF-510520 Y2	TIP3c TF-520530 Y2	TAP1c T1-507510 Y2	TAP2c T1-510520 Y2	TAP3c T1-520530 Y2	TAP1 T1-507510 Y2	TAP2 T1-510520 Y2	TAP3 T1-520530 Y2	TOP1 T1-507510 Y2
BX 40i										476
VM 10HSi	276	232	212	236	216	182	236	216	182	236
VM 10i	276	232		236	216		236	216		236
VM 20i			314		318	284		318	284	338
VM 30i						284			284	
VMX 24HSi			314		318	284	338	318	284	338
VMX 24i			314		318	284	338	318	284	338
VMX 30HSi			314		318	284	338	318	284	338
VMX 30i			314		318	284	338	318	284	338
VMX 42HSi						386			386	
VMX 42i						386			386	
VMX 50i									436	
VMX 60i										
VMX 64i										
VMX 84i										

	TOP2 T1-510520 Y2	TOP3 T1-520530 Y2	TAP1c.2 T1-507510 Y2	TAP2c.2 T1-510520 Y2	TAP3c.2 T1-520530 Y2	TAP1.2 T1-507510 Y2	TAP2.2 T1-510520 Y2	TAP3.2 T1-520530 Y2	TOP1.2 T2-507510 Y2	TOP2.2 T2-510520 Y2	TOP3.2 T2-520530 Y2
BX 40i		476		510	476		510			510	
VM 10HSi	216	182	236	216		236			236		
VM 10i			236	216		236			236		
VM 20i	318	284	338	318	284	338	318	284	338	318	284
VM 30i	318	284		318	284	338	318	284	338	318	284
VMX 24HSi	318	284	338	318		338			338		
VMX 24i	318	284	338	318		338			338		
VMX 30HSi	318	284	338	318		338	318		338	318	
VMX 30i	318	284	338	318		338	318		338	318	
VMX 42HSi	420	386		420	386	440	420	386	440	420	386
VMX 42i	420	386		420	386	440	420	386	440	420	386
VMX 50i		436		470	436		470	436		470	436
VMX 60i					436		470	436		470	436
VMX 64i					653			653			653
VMX 84i					641			641			641



Very good accessibility, even with short tools

More space for workpieces and fixtures



530

520


51x

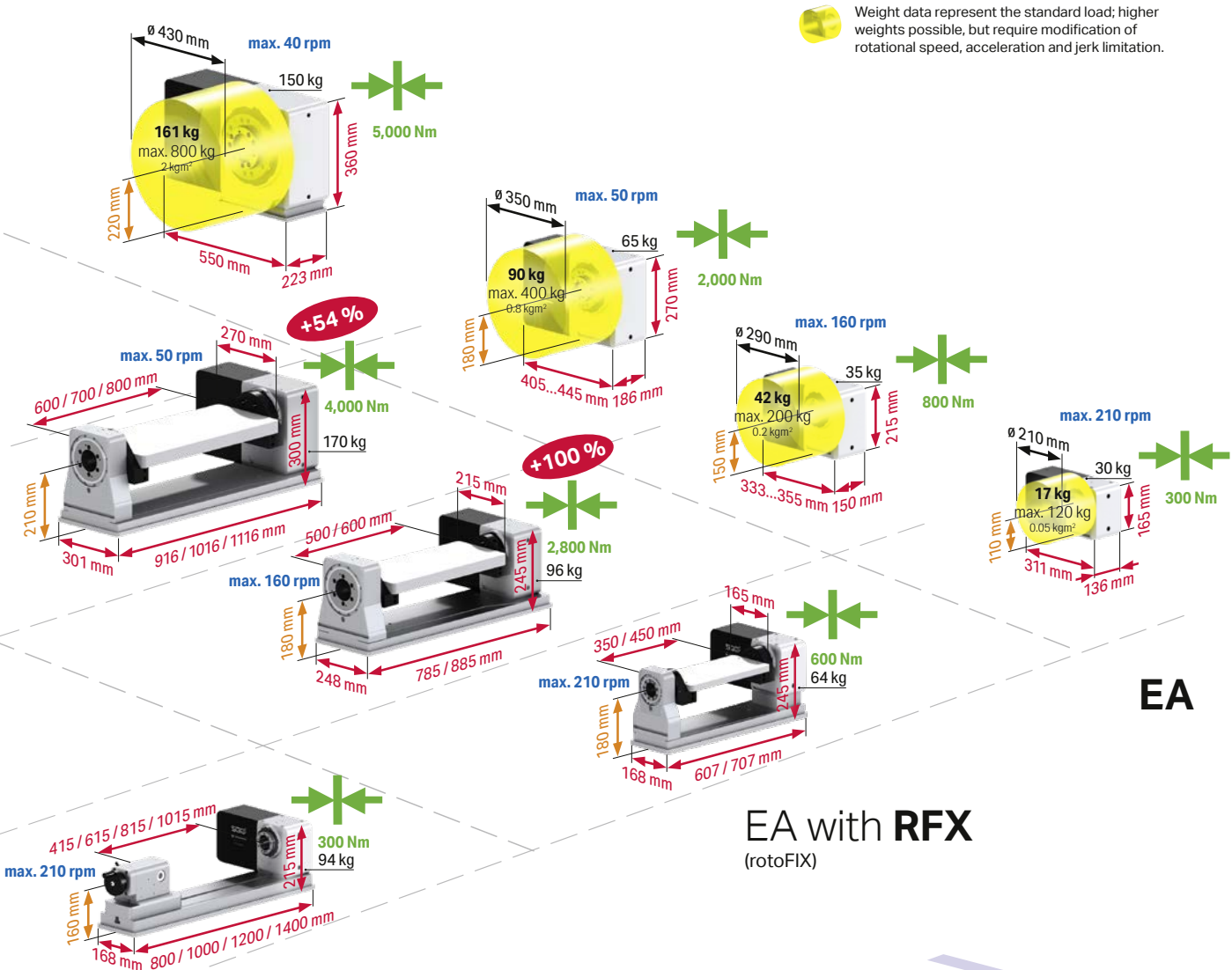
50x

SIZE

News in brief

1. High speed up to 210 rpm
2. Feed torque up to 850 Nm (tentative)
3. Steel base plates with hole pattern (suitable for slot spacing of 100 and 125 mm)
4. Cycle time 90° as fast as 0.21 sec.

 Weight data represent the standard load; higher weights possible, but require modification of rotational speed, acceleration and jerk limitation.

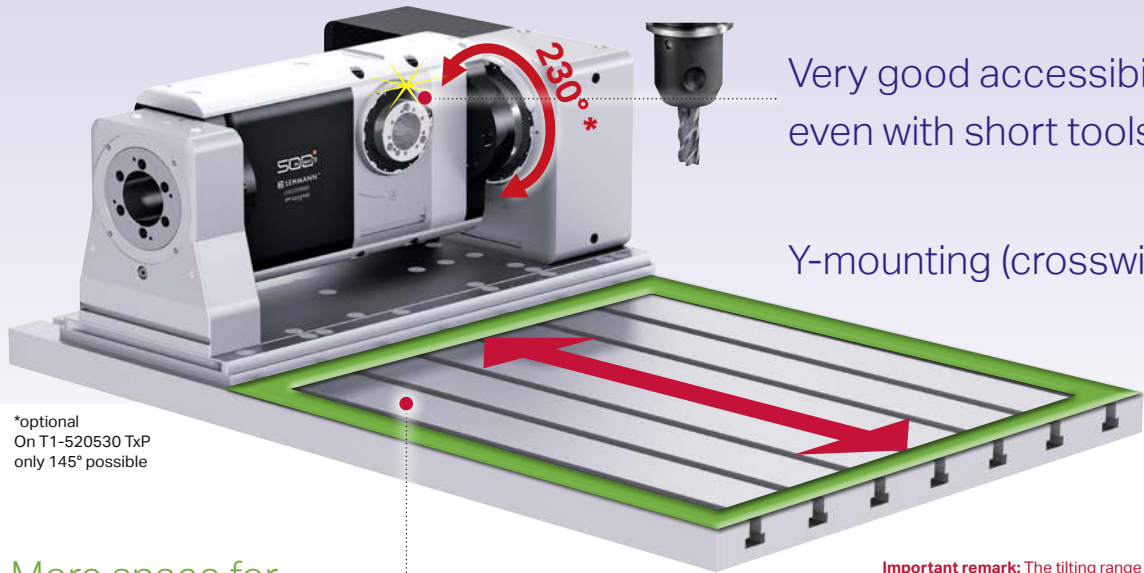


EA with **LFX**
(longFLEX)

EA with **RFX**
(rotoFIX)

MODEL

- 50x 507 (standard) or 508 (high speed)
- 51x 510 (standard) or 511 (high speed)
- EA single-axis, single-spindle CNC rotary table
- rotoFIX modular clamping yoke system
- longFLEX modular shaft clamping system



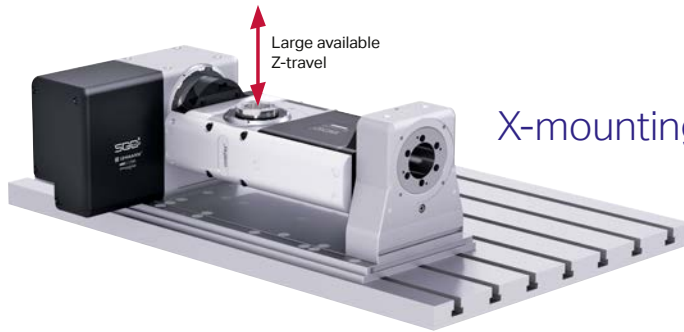
Very good accessibility, even with short tools

Y-mounting (crosswise)

*optional
On T1-520530 TxP
only 145° possible

More space for workpiece and fixtures

Important remark: The tilting range of 180° (order no. SWB.5xx-180) can be used under usual reserve only, because the limit switches are also used as reference switches.



Large available Z-travel

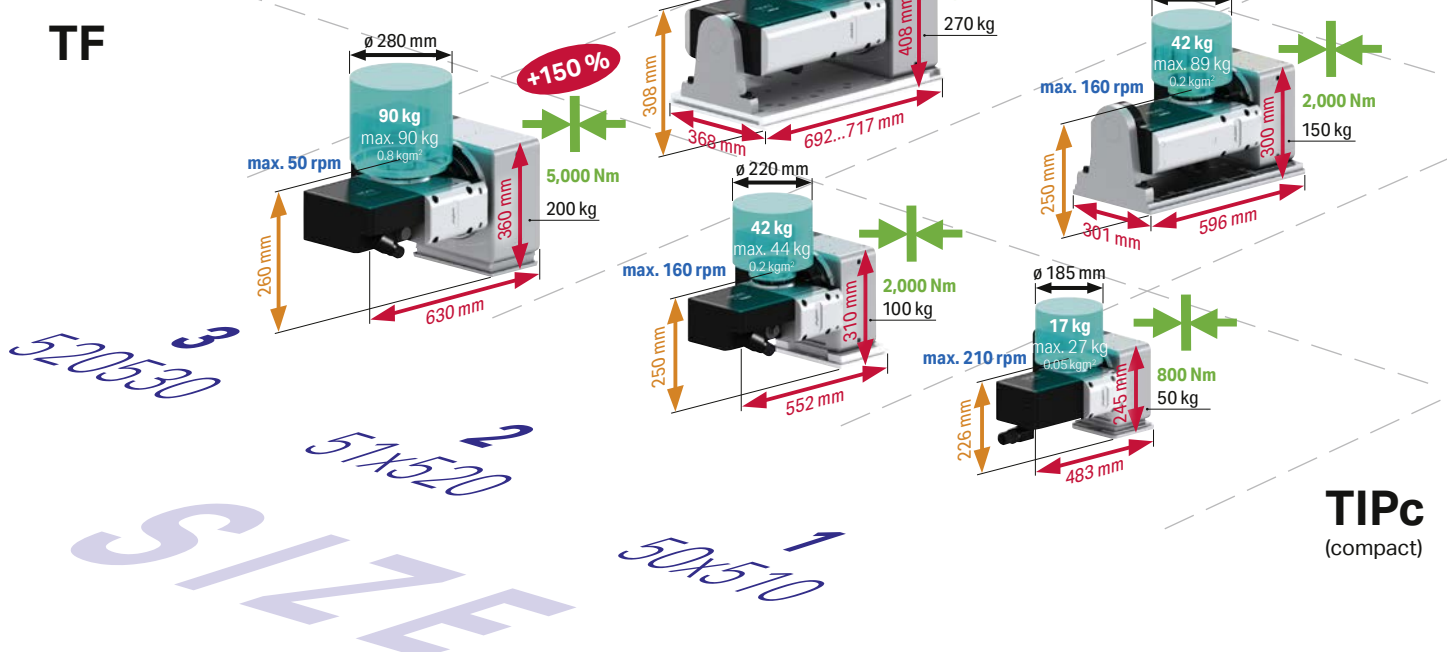
X-mounting (lengthwise)

T1

T1

T1

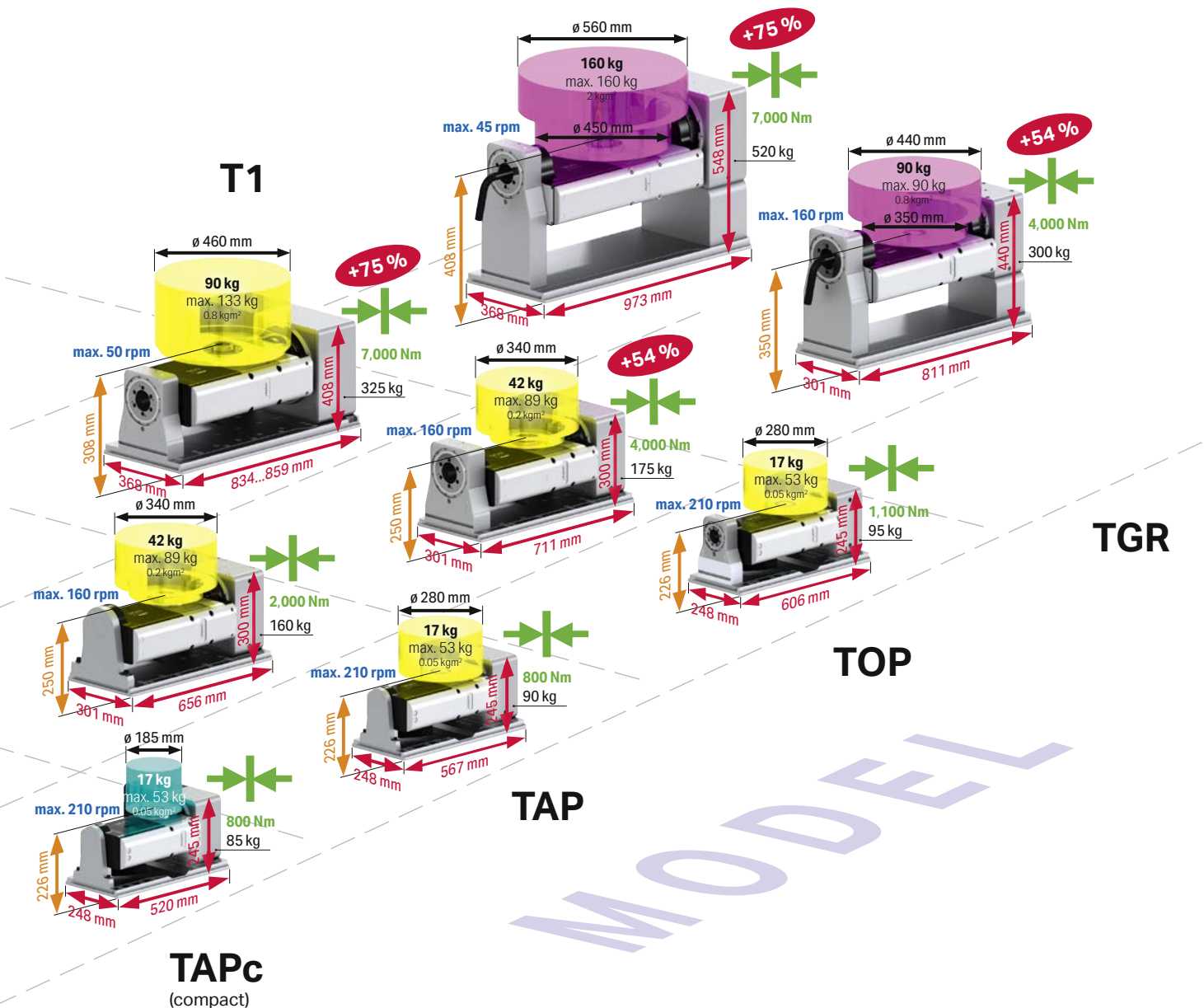
TF



TIPc (compact)

News in brief

1. Up to 150% higher clamping torque in tilting axis
2. Fewer variant – more solution
3. Larger workpiece \varnothing possible
4. Spatially optimized arrangement of the dividing axis

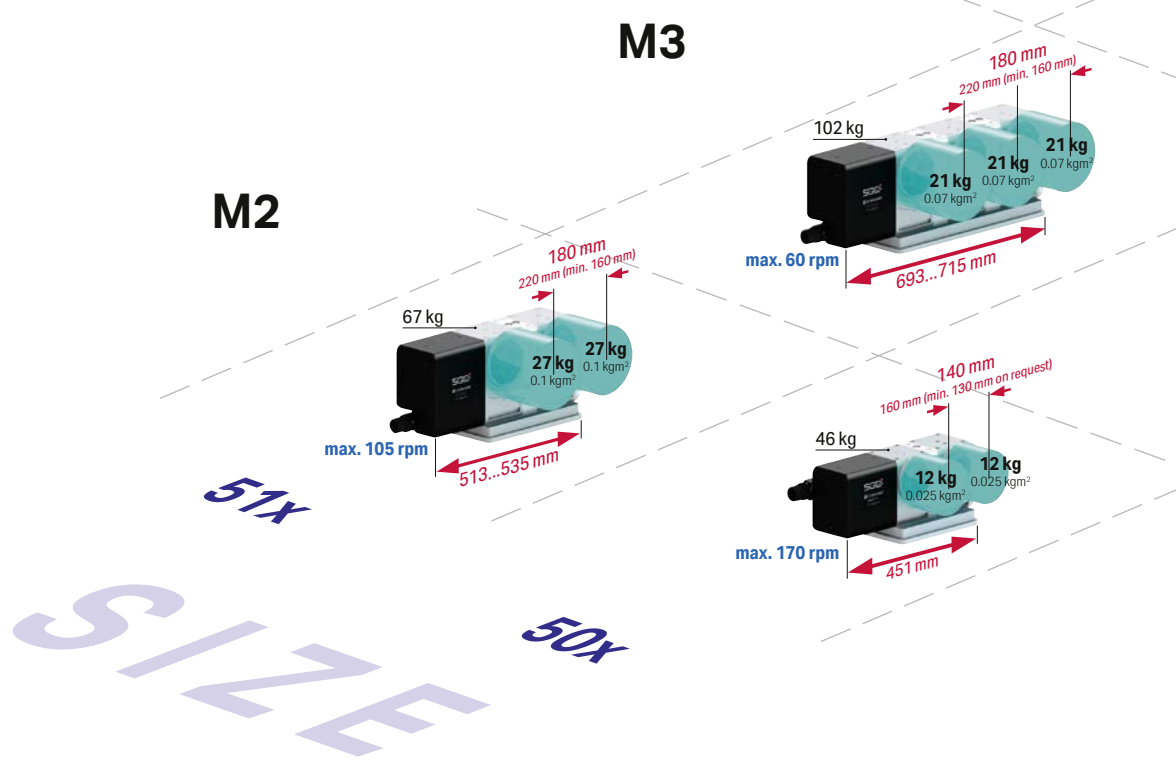


Weight data represent the standard load; higher weights possible, but require modification of rotational speed, acceleration and jerk limitation.

- 50x510 508510 (standard) or 508510 (high speed)
- 51x520 510520 (standard) or 511520 (high speed)
- TIPc Two-axis rotary table, no counter bearing, compact
- TAPc Two-axis rotary table, with supporting bearing, compact
- TAP Two-axis rotary table, with supporting bearing
- TOP Two-axis rotary table, with clamped counter bearing
- TGR Two-axis rotary table, with clamped counter bearing, specifically for grinding applications

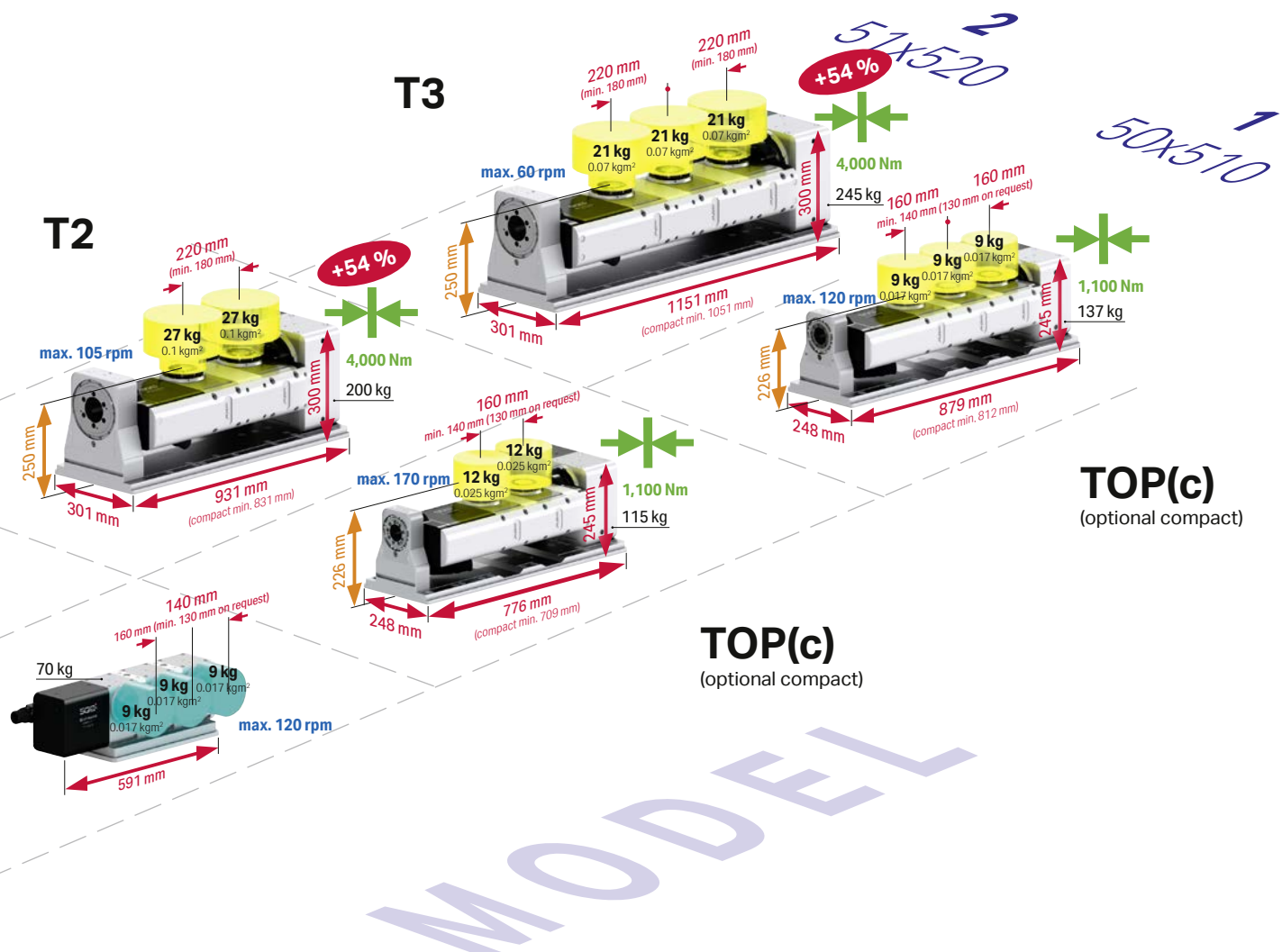


More space for workpiece and fixtures



News in brief

1. Up to **54 %** higher clamping torque in tilting axis
2. Fewer variant – more solution
3. Spindle distance min. **130 mm**
4. Spatially optimized arrangement of the dividing axis



Weight data represent the standard load; higher weights possible, but require modification of rotational speed, acceleration and jerk limitation.

- 50x 507 (standard) or 508 (high speed)
- 51x 510 (standard) or 511 (high speed)
- M2 Single-axis, multi-spindle rotary table, 2-position
- M3 Single-axis, multi-spindle rotary table, 3-position
- T2 Two-axis multi-spindle rotary table, 2-position
- T3 Two-axis multi-spindle rotary table, 3-position

Extremely wide assortment for workpiece clamping.
Standardized interface in front and rear: maximum universality

Spindle accessories in rear

- + Rotary unions **up to 250 bar**
- + Clamping cylinder **23 kN at 120 bar**
- + Angular position measuring systems **as precise as ± 1 arcsec**



Spindle accessories in front



Tailstock and counter bearing



ripas zero point clamping system



EA-507 with ripas auto and ripas adapter

CAPTO clamping (on request)

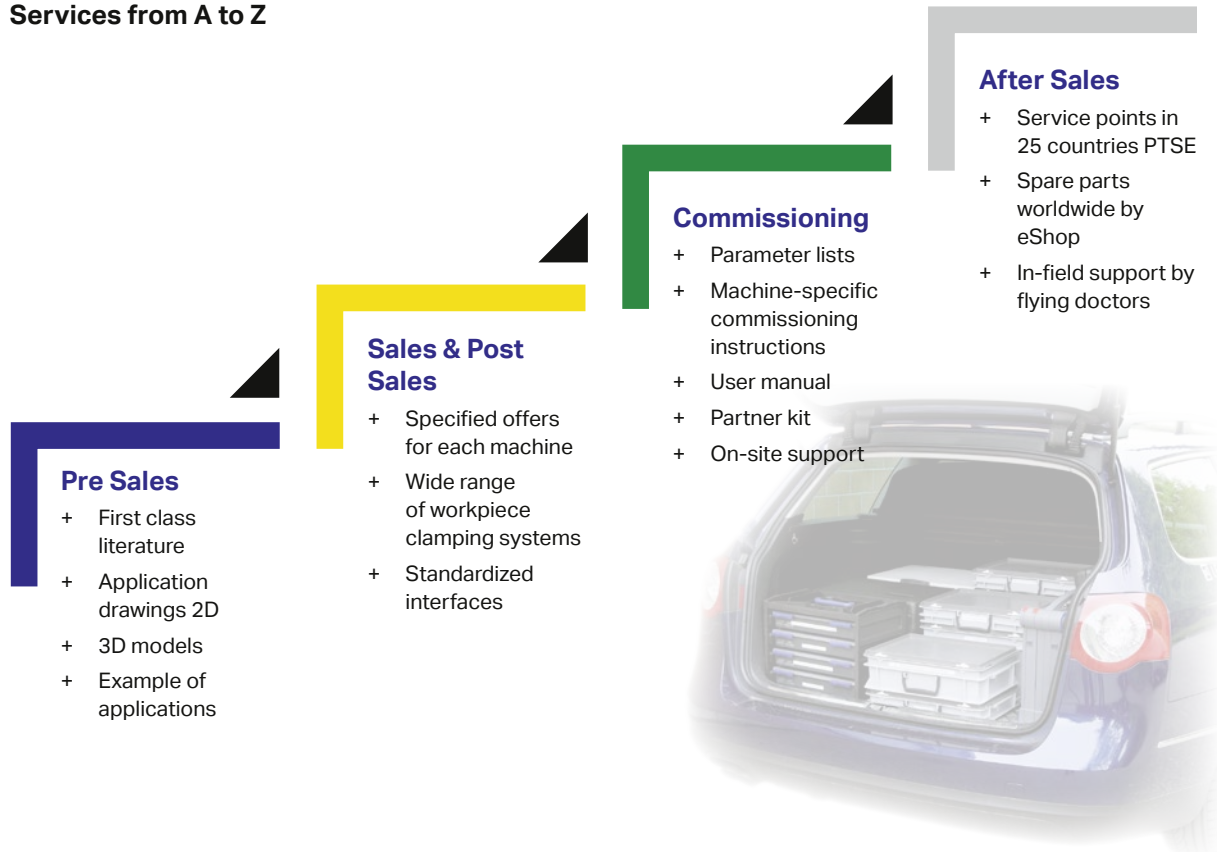


EA-507 with CAPTO retrofit kit

Present in over 20 countries: from sales consultation to the final service

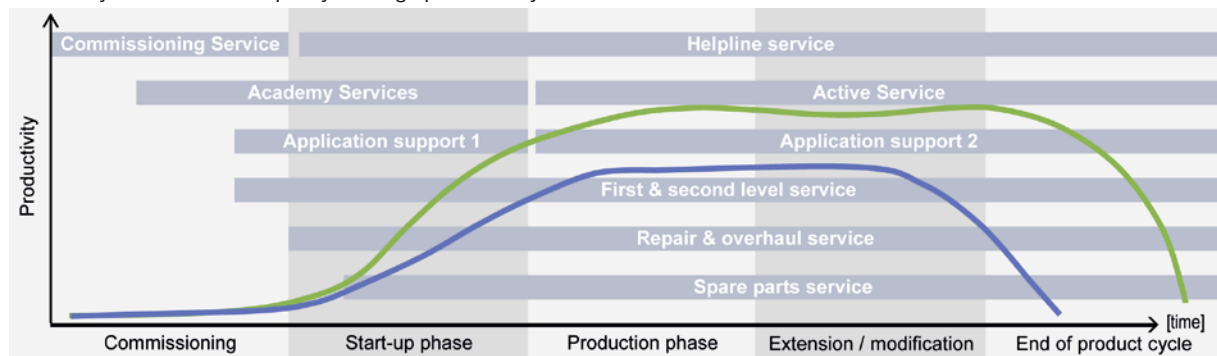


Services from A to Z



Increase productivity – Extend lifecycle

Comprehensive and professional services throughout the product life cycle – maximum availability with consistent quality and high productivity.



— Productivity with LifeCycle service products from pL LEHMANN
 — Productivity without service support

For more information please see www.lehmann-rotary-tables.com.



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Representatives / Agencies

Europe

- Austria
- Benelux
- Czech Republic (vacant)
- Finland
- France
- Germany
- Hungary (vacant)
- Italy
- Norway
- Poland
- Portugal
- Russia
- Slovenia
- Spain
- Sweden
- Turkey
- UK

America

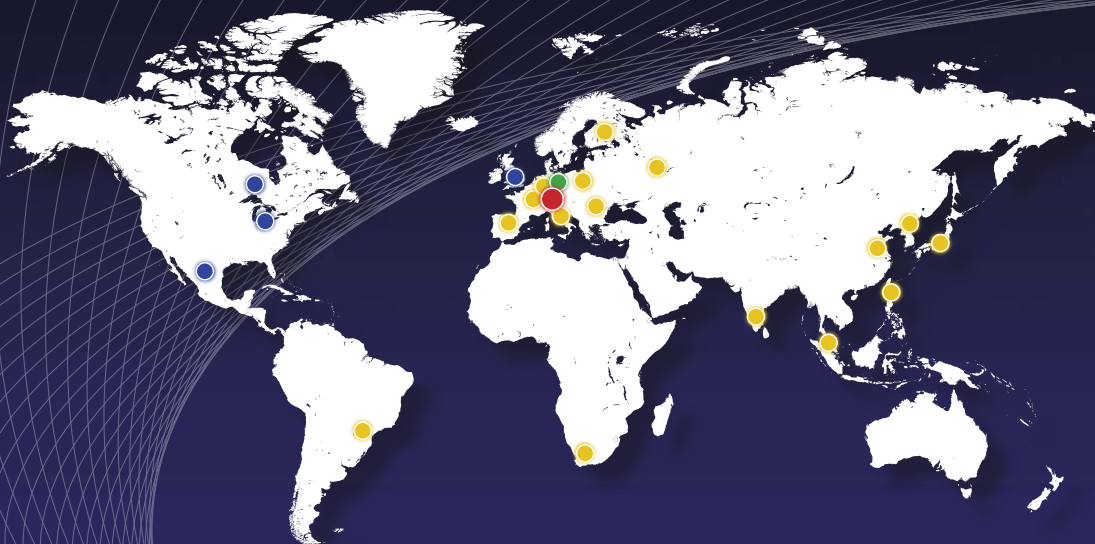
- Brazil
- Canada
- Mexico
- USA

Asia

- China
- India
- Japan
- Malaysia
- Singapore
- South Korea
- Taiwan
- Thailand
- Vietnam

Africa

- South Africa



● Headquarters ● direct sales partner ● pL Solutions® partner ● value added reseller & partner

More information (address, telephone number...) at www.lehmann-rotary-tables.com